

CLAIMS

What is claimed is:

- 1) A device for viewing a liquid thin film, comprising:
 - 5 a) a container;
 - b) a frame in the container for holding a liquid thin film;
 - c) a slider attached to the frame, wherein the slider produces the film in the frame when moved across the frame.
- 10 2. The device of claim 1 wherein the slider moves across the frame due to gravity when the frame is tilted.
3. The device of claim 1 wherein the slider includes a first magnetic element, and the slider moves across the frame in response to movement of a second magnetic element external to the
15 container and magnetically coupled to the first magnetic element.
4. The device of claim 1 wherein the device is bistable in that it has two stable resting positions when placed on a horizontal surface.
- 20 5. The device of claim 1 wherein the container is hermetically sealed, and the container contains film-forming liquid.
6. The device of claim 1 wherein the container contains a particle-filtered gas.
- 25 7. The device of claim 1 wherein the frame comprises two rails and the slider is disposed on the rails, and the slider moves across the frame by sliding along the rails.
8. The device of claim 1 wherein the slider moves across the frame by pivoting.
- 30 9. The device of claim 1 wherein the slider is flexible.

10. The device of claim 1 wherein the slider includes a magnetic element so that the slider can be rendered immovable by a second magnetic element external to the container.

5 11. The device of claim 1 wherein the frame holds the film at an angle within about 20 degrees of horizontal when the device is resting on a horizontal surface.

12. The device of claim 1 further comprising a vibratable element attached to the container that creates standing waves in the film when vibrated.

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13. A device for viewing a liquid thin film, comprising:

a) a container;

b) a frame in the container for holding a liquid thin film;

c) a slider in the container for producing the film in the frame when moved across the frame;

15 wherein the slider moves across the frame due to gravity when the frame is tilted.

14. The device of claim 13 wherein the slider moves across the frame by translational motion.

15. The device of claim 13 wherein the slider moves across the frame by pivoting.

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16. The device of claim 13 wherein the frame is rigidly attached to the container.

17. The device of claim 13 wherein the device is bistable in that it has two stable resting positions when placed on a horizontal surface.

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18. The device of claim 13 wherein the frame holds the film at an angle within about 20 degrees of horizontal when the device is resting on a horizontal surface.

19. The device of claim 13 further comprising a vibratable element attached to the container that creates standing waves in the film when vibrated.

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20. A device for viewing a liquid thin film, comprising:

a) a sealed container containing a film-forming liquid;

b) a frame within the container for holding a liquid thin film;

5 c) a slider for creating the liquid thin film in the frame, wherein the slider is movable across the frame.

21. The device of claim 1 wherein the frame comprises two rails and the slider is disposed on the rails, and the slider moves across the frame by sliding along the rails.

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